

Simple Soap and Water—Still the Best Means of Infection Control

Mom was right! Proper handwashing is the single most important thing people can do to reduce the risk of transmitting disease. The medical model of treating communicable diseases with an ever expanding arsenal of drugs is failing. Additionally, many disease-producing micro-organisms (viruses, parasitic cysts, and some fungi) are not susceptible to antibiotics at all. The blind belief that science can cure all our ills is a dangerous myth. Individuals themselves must take personal responsibility to reduce the spread of disease, and handwashing is the place to start.

One of the earliest physicians to promote handwashing was Moses Maimonides, in the mid-1100s. He lectured his students to always "wash your hands after having touched a sick person," and he practiced what he preached. Unfortunately, the medical community was to take a long time to learn this lesson. In the early 1840s, Guiseppe Giannini and Oliver Wendell Holmes both emphasized the importance of handwashing.

The most famous of the "handwashers," is probably the Hungarian physician, Ignaz Semmelweis. He not only promoted the practice, but also *proved* its importance. He was disturbed and confounded by the markedly higher mortality rate in Vienna's Allgemeines Krankenhaus First Clinic, where medical students managed the obstetrics cases—compared with that in the Second Clinic, where women were assigned to midwives.

Semmelweis was horrified when he realized that childbed fever was being transmitted by the physicians and medical students themselves. He noted that they carried "decomposed animal-organic matter" from one patient to the next by performing postmortem examinations before making their afternoon obstetric rounds—without washing their hands.

In May 1847 Semmelweis's orders were officially issued and enforced at the hospital: physicians and students in the First Clinic were directed to wash their hands after the post-mortem examinations and between each obstetrical examination. Within 7 months, the mortality rate dropped from 12% to 3%. Semmelweis published his detailed findings in the 1861 treatise, *The Etiology, the Concept,*

and the Prophylaxis of Childbed Fever. This simple lesson predated even the discovery of micro-organisms, yet handwashing has yet to be widely appreciated. Although the majority of health practitioners today adhere to strict protocols for hygiene and sanitation, lapses still occur. Moreover, practitioners need to increase their efforts to promote effective handwashing habits among their patients.

The following page, designed for public health education, describes essential elements of effective handwashing. It may be reproduced in any quantity to be used for non-profit health education purposes. The information is from current APIC guidelines for handwashing and

from the pamphlet, *Don't Get Caught DIRTYHANDED!* (produced by Bayer Pharmaceutical

April 6-12 is Public Health Week—a great time to promote handwashing, one of the oldest public health measures of all!

Division and the American Society for Microbiology).

You may obtain this pamphlet by sending your request and a self-addressed, stamped envelope to the TDH Infectious Disease Epidemiology and Surveillance Division, 1100 W. 49th St., Austin, TX 78756-3199.



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Historical information from Othersen MJ and Othersen H, Jr. A history of hand washing: Seven hundred years at a snail's pace. The Pharos, Spring 1987.

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Wash Your Hands!

Your skin constantly makes oil that stays on its surface. The germs that get on your skin get trapped in the oil. Skin does not have to look dirty to be loaded with tiny germs that can cause big problems—like colds, diarrhea, and more serious diseases. Washing your hands with soap and warm water is one of the best things you can do to stay healthy.

But I wash my hands a lot.

We are all usually in a hurry—to eat, to get back to work, to make that important meeting. Too often we forget or "don't have time." Or we think a quick cold water rinse will do. But that doesn't "cut it" ...literally.

Oils, and any attached germs, must be **removed** from the skin. A dash of cold water and a quick rub with a towel doesn't do much good. You need to use **warm or hot water and soap** to get the oil and germs off your skin.

Should I use antibacterial soap?

Antibacterial soap helps kill some germs—but not all. Some germs **can't be killed**, no matter how strong the soap is or how long you leave it on. Besides, you might not always have special soap with you. That's why it's very important to spend enough time and care to **wash germs away**.

Remember. . . How you wash and dry your hands makes a difference.

- ☞ Use soap and warm or hot running water
- ☞ Take at least 10 seconds to do the washing (at least 20 seconds with cold water)
- ☞ Wash all surfaces, including wrists, palms, backs of hands, between fingers, and as much as possible under fingernails
- ☞ Away from home, use disposable paper towels or the hot air blower if possible.
- ☞ At home, provide a separate towel for each member of the household, and wash towels regularly in hot water and detergent.

To do the most good, washing your hands has to become a habit. You're more likely to learn a new habit and stick with it if it's easy. Most of the time, proper handwashing is easy.

Can I just use a waterless hand sanitizer?

Using a product like this is probably better than doing nothing. But washing your hands with soap and warm water is still best. Again, the waterless sanitizer doesn't get germs **off** your skin and can't kill all harmful germs.

When should I wash my hands?

Before you

- ◆ eat
- ◆ treat a break in the skin
- ◆ care for an ill/injured person or animal
- ◆ insert or remove contact lenses

Immediately after you

- ◆ use the restroom
- ◆ handle uncooked foods (especially raw meat, poultry or fish)
- ◆ change a diaper
- ◆ blow your nose, sneeze, or cough
- ◆ touch an animal (especially a reptile)
- ◆ handle garbage
- ◆ care for an ill/injured person or animal

Whenever you've been touching things many people have handled. Routine hand washing can help reduce your chances of getting an infection.

Jan/Feb 1998

Bimonthly Statistical Summary of Selected Reportable Diseases

Selected Diseases/Conditions	HHSC Region											Selected Texas Counties								This Period		Cumulative[1]	
	1	2	3	4	5	6	7	8	9	10	11	Bexar	Dallas	El Paso	Harris	Hidalgo	Nueces	Tarrant	Travis	1997	1998	1997	1998
Sexually Transmitted Diseases[2]																							
Syphilis, primary and secondary *	3	0	13	9	1	14	2	5	2	1	0	3	12	1	14	0	0	1	0	102	51	102	51
Congenital Syphilis *	0	0	0	0	1	11	0	0	0	0	0	0	0	0	11	0	0	0	0	30	12	30	12
Resistant Neisseria gonorrhoeae *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Enteric Diseases																							
Salmonellosis	4	0	0	0	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	260	9	260	9
Shigellosis	21	0	0	0	3	0	0	2	0	0	2	0	0	0	0	1	0	0	0	336	28	336	28
Hepatitis A	16	0	4	0	4	1	2	0	0	0	3	0	4	0	1	1	0	0	2	804	30	804	30
Campylobacteriosis	5	2	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	1	1	111	10	111	10
Bacterial Infections																							
H. influenzae type b, invasive	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	5	1
Meningococcal, invasive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	58	0
Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	0
Vibrio species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Other Conditions																							
AIDS[4]	11	1	181	29	26	293	103	56	8	25	18	48	120	24	268	4	6	33	66	769	731	769	731
Hepatitis B	2	1	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	218	7	218	7
Adult elevated blood lead levels	0	0	13	2	0	3	0	5	1	0	8	2	3	0	3	0	0	2	0	75	32	75	32
Animal rabies - total	1	6	1	1	1	2	2	2	9	0	3	0	0	0	0	1	0	0	0	31	28	31	28
Animal rabies - dogs and cats	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
Tuberculosis Disease[2]																							
Children (0-14 years)	1	0	4	1	0	4	4	2	1	0	2	1	0	0	4	2	0	4	2	17	19	17	19
Adults (>14 years)	2	0	43	3	0	80	13	15	4	6	22	12	28	6	66	5	6	12	5	202	188	202	188
Injuries[2]																							
Spinal Cord Injuries (5)	0	0	2	0	0	6	1	0	0	0	0	0	0	0	0	0	0	1	0	22	10	22	10

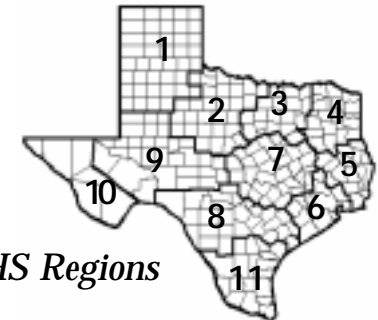
1. Cumulative to this month. 2. Data for the STD's, Tuberculosis, and spinal cord injuries are provided by date of report, rather than date of onset. 3. Voluntary reporting. 4. AIDS totals include reported cases from Texas Department of Corrections, which are not included in the regional and county totals. 5. 6 reports were missing PHR identification *Data incomplete.

Call 1-800-705-8868 to report

1996 POPULATION ESTIMATES

HHSC REGIONS							
1	760,526	4	947,431	7	1,902,211	10	722,076
2	532,854	5	683,583	8	1,983,995	11	1,574,446
3	4,968,610	6	4,325,854	9	548,963		
STATEWIDE TOTAL 18,950,549							

SELECTED TEXAS COUNTIES			
Bexar	1,308,092	Hidalgo	475,917
Dallas	2,053,859	Nueces	313,907
El Paso	694,878	Tarrant	1,390,298
Harris	3,099,066	Travis	620,718



DHHS Regions



Disease Prevention News (DPN)
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The electronic versions of Disease Prevention News are available at the following locations:
<http://www.tdh.state.tx.us/phpep/dpnhome.htm>
 TDH Healthy Texans BBS: (800) 858-5833

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Vaccine-Preventable Disease Update Reported cases with onset from 1/1/98-02/28/98

Condition	County	Number of Cases	Date of Onset	Condition	County	Number of Cases	Date of Onset
Mumps	Bexar	1	1/10	Mumps	Jefferson	1	1/7
		1	1/29		Lubbock	1	1/28
	Cameron	1	1/13	Pertussis	Cameron	2	1/1
	Dallas	1	1/6			1	1/16
		1	2/2		Dallas	2	1/16
		1	2/11		El Paso	1	2/2
		1	2/13		Harris	1	1/1
		1	2/20		Hidalgo	1	1/6
		1	2/26		Hockley	1	1/20
	Ggrayson	1	2/9		Navarro	1	2/14
	Harris	1	1/12	Rubella	Cameron	1	1/12
	Hidalgo	1	1/15			1	2/25
YTD	Mumps			Pertussis			Rubella
	14			10			2